

FSMQ

Foundations of Advanced Mathematics (MEI)

Unit **6989**: Multiple Choice

Free Standing Mathematics Qualification

OCR Report to Centres June 2018

About this Examiner Report to Centres

This report on the 2018 Summer assessments aims to highlight:

- areas where students were more successful
- main areas where students may need additional support and some reflection
- points of advice for future examinations

It is intended to be constructive and informative and to promote better understanding of the specification content, of the operation of the scheme of assessment and of the application of assessment criteria.

Reports should be read in conjunction with the published question papers and mark schemes for the examination.

The report also includes links and brief information on:

- A reminder of our **post-results services** including **reviews of results**
- Link to **grade boundaries**
- **Further support that you can expect from OCR**, such as our Active Results service and CPD programme

Reviews of results

If any of your students' results are not as expected you may wish to consider one of our reviews of results services. For full information about the options available visit the [OCR website](#). If University places are at stake you may wish to consider priority service 2 reviews of marking which have an earlier deadline to ensure your reviews are processed in time for university applications: <http://www.ocr.org.uk/administration/stage-5-post-results-services/enquiries-about-results/service-2-priority-service-2-2a-2b/>

Grade boundaries

Grade boundaries for this, and all other assessments, can be found on the [OCR website](#).

Further support from OCR



Active Results offers a unique perspective on results data and greater opportunities to understand students' performance.

It allows you to:

- Review reports on the **performance of individual candidates**, cohorts of students and whole centres
- **Analyse results** at question and/or topic level
- **Compare your centre** with OCR national averages or similar OCR centres.
- Identify areas of the curriculum where students excel or struggle and help **pinpoint strengths and weaknesses** of students and teaching departments.

<http://www.ocr.org.uk/administration/support-and-tools/active-results/getting-started/>



Attend one of our popular CPD courses to hear exam feedback directly from a senior assessors or drop in to an online Q&A session.

<https://www.cpdhub.ocr.org.uk>

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The mean mark, at 31, was similar to previous series, with four candidates scoring full marks. All candidates submitted an answer to all questions.

In only two questions was the correct response given by fewer than 50% of the candidates.

Q13 Probability

The number of spins was 2 and so candidates had to decide when to double their answer and when not. 34% correctly responded D, but 35% selected response A.

Q33 Vectors

The false response was A where the angle given was with the line directly across the river and not the bank. Only 30% of candidates chose this response while 29% chose C and 29% chose D.

As in previous sessions, I offer a summary of questions with the approximate percentage of candidates giving the correct responses.

Percentage obtaining the correct response	Question	Topic
91 – 100	2	Arithmetic- evaluate expressions
	3	Arithmetic – fractions
	5	Arithmetic- percentages
	6	Arithmetic – powers
	15	Arithmetic – appropriate units
	18	Arithmetic – Accuracy
	19	Algebra- Algebraic expressions
	21	Algebra – sequences
	25	Graphs – velocity – time graph
	26	Trigonometry – Right angled triangle
81 – 90	4	Arithmetic – ratios
	8	Arithmetic – mensuration
	17	Algebra- substitution of numbers
	20	Algebra – manipulation of expressions
	27	Trigonometry – sin and cosine rules
	32	Algebra – linear inequalities
	34	Statistics – bar chart
	38	Probability – tree diagram
	40	Arithmetic - Scale drawing
71 – 80	14	Algebra – expressions
	16	Algebra – linear equations
	22	Algebra – rearranging formulae
	23	Algebra – simultaneous equations
	24	Algebra - quadratic expressions
	28	Graphs – lines in coordinate geometry
	29	Trigonometry - 3-D diagram
	35	Statistics – rate of increase
	36	Algebra – addition of fractions
	37	Graphs – cubic function
	39	Statistics – mean and median
61 – 70	1	Arithmetic – vocabulary and notation
	9	Arithmetic – accumulating errors
	10	Arithmetic – appropriate units
	11	Algebra – roots of quadratic equations
	31	Vectors
51 – 60	7	Arithmetic – conversion of units
	12	Algebra – forming algebraic equations
	30	Statistics – sampling and means
41 – 50	-	-
31 – 40	13	Probability – independent trials
21 – 30	33	Vectors

Answers.

1	C
2	A
3	C
4	A
5	B
6	C
7	A
8	D
9	D
10	C
11	D
12	A
13	D
14	A
15	B
16	D
17	C
18	C
19	B
20	B

21	D
22	B
23	B
24	C
25	B
26	A
27	A
28	C
29	B
30	D
31	B
32	D
33	A
34	D
35	B
36	D
37	A
38	B
39	D
40	C

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OCR (Oxford Cambridge and RSA Examinations)
The Triangle Building
Shaftesbury Road
Cambridge
CB2 8EA

OCR Customer Contact Centre

Telephone: 01223 553998

Facsimile: 01223 552627

Email: general.qualifications@ocr.org.uk

www.ocr.org.uk

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OCR (Oxford Cambridge and RSA Examinations)
Head office
Telephone: 01223 552552
Facsimile: 01223 552553

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